RINGWOOD PUBLIC SCHOOLS

WHAT EVERY STUDENT SHOULD KNOW BY THE END OF SIXTH GRADE – SCIENCE

Scientific Processes

- Name the steps of the scientific method.
- Conduct an experiment using the scientific method
- Identify and apply safety procedures.

Science and Society

- Identify and describe Earth science specialties.
- Name key scientists who have contributed in Earth science and describe what they have contributed.

Mathematical Applications

- Measure quantities using the metric system including volume, mass and temperature.
- Use formulas to calculate quantities including volume, density and mass.
- Construct and interpret a circle and bar graph using collected data.
- Identify and describe three types of models including mathematical, physical and conceptual models.

Nature and Process of Technology

- Accurate use of the ruler, graduated cylinder/beaker, double panned balance, Celsius thermometer, spring scale, lighted microscope, hand lens and streak plate.
- Identify selected minerals using characteristics such as streak hardness and special properties using streak plate, moh's scale, magnets and vinegar.
- Organize data and important information using graphic organizer.

Life Science

- Identify and explain certain adaptations which are needed for ocean organisms to survive in a particular environment.

Earth Science

- Summarize the process in the rock cycle and describe characteristics of igneous, metamorphic and sedimentary rocks.
- Explain how continental plates were formed through constructive and destructive processes.
- Identify and label the layers of the Earth by composition and physical properties.
- Use theory of plate tectonics to explain relationships among earthquakes, volcanoes, mid ocean ridge, and deep sea trenches.

Astronomy and Space Science

- Explain how regular and predictable motions of the earth and moon produce tides.
- Explain how motions of the earth, sun and moon define units of time including days, months and year.

Environmental Studies

- Describe the effect of human activities on the greenhouse effect and global warming models.
- Describe and discuss the impact of catastrophic events such as forest fire, floods and hurricanes on the environment.